

**SABIT Environmental Technology Program**  
**Wastewater and Water Treatment Session**

**Industrial Wastewater from the following industries:**

- Iron and Steel
- Pulp and paper mills
- Inorganic chemicals manufacturing
- Textile manufacturing
- Oil production
- Paint manufacturing
- Food and kindred products
- Mining
- Livestock feeding
- Agriculture and irrigation
- Nonferrous metals
- Hydroelectric/nuclear facilities
- Breweries
- Electro plating
- Organic chemicals manufacturing

**Management Services**

- Aquaculture wastewater management
- Lake and marine management
- Coastal resource protection & planning
- Toxicology studies
- Ecological restoration of streams and wetlands
- Laboratory services
- Effluent sampling/monitoring services
- Water regulations and policy development
- Emergency response planning/services
- Potable water systems
- Groundwater sampling/monitoring services
- Municipal wastewater treatment

**Analytical/Monitoring Instruments:**

- Process analyzers
- samplers
- telemetry
- flowmeters
- water quality monitors

**Collection/Control/Conveyance Systems**

- Groundwater collection/extraction
- Liquid storage
- Water distribution Systems
- Sewer and stormwater systems
- Bulk liquid handling

**Treatment Systems**

- Water purification (potable and industrial)
- Wastewater sludge - treatment/management
- Innovative wastewater treatment systems
- Sludge stabilization
- Wastewater treatment - primary
- Sludge dewatering and disposal
- Wastewater treatment - secondary
- Marine spill control
- Wastewater treatment - disinfection
- Liquid waste treatment
- Wastewater treatment - tertiary (advanced)

## Liquid waste and wastewater recycling

### **Water/Wastewater Treatment Technologies**

#### Separation:

Air stripping (w/abatement)  
Precipitation  
Steam stripping (w/incineration)  
Freeze crystallization  
Carbon absorption (w/regeneration or incineration)  
Distillation/evaporation  
Membrane filtration (including reverse osmosis)  
Fluid extraction  
Ion exchange  
Other physical treatments

#### Biological Treatment:

Aerobic  
Anaerobic  
anoxic

#### Thermal Treatment:

Incineration  
thermal catalytic oxidation  
wet air oxidation  
supercritical water oxidation

#### Oxidation Processes:

Ozone, oxidation and combined methods  
Electron beam irradiation  
Electrohydraulic cavitation and sonolysis  
Photolysis and photocatalysis  
Supercritical water oxidation  
Chlorine and hydrogen peroxide  
Non thermal discharge (silent discharge plasma reactors)  
Air sparging

### **Other Topics**

Environmental regulation, enforcement  
Non-point source issues  
Worker safety and health standards  
Risk management/corrective action  
Watershed protection program  
Pollution prevention

### **Market-Oriented Training Topics:**

Company strategy development  
Contract negotiation  
Supply and demand/pricing  
Project development/program planning  
Sales and marketing  
Raising capital  
Proposal writing/business plans  
Bringing R&D to market  
Customer service